

Using your intuition, find each of the following:

1.  $\lim_{x \rightarrow 3} (x + 2)$

2.  $\lim_{x \rightarrow 4} 5x$

3.  $\lim_{x \rightarrow -1} (7x + 4)$

4.  $\lim_{x \rightarrow 2} (mx + b)$

5.  $\lim_{x \rightarrow 0} (2x^2 + 4)$

6.  $\lim_{x \rightarrow 1} (4x^2 + 13x + 11)$

7.  $\lim_{x \rightarrow -3} (x^2 + 3x + 4)$

8.  $\lim_{h \rightarrow 2} \frac{h}{h}$

9.  $\lim_{x \rightarrow 0} \frac{(x^2 + 2x)}{x}$

10.  $\lim_{x \rightarrow 3} \frac{x^2 - 9}{3x - 9}$

11.  $\lim_{x \rightarrow 7} \frac{x^2 - 16}{x^2 - 5x + 4}$

12.  $\lim_{x \rightarrow 4} \frac{x^2 - 16}{x^2 - 5x + 4}$

13.  $\lim_{x \rightarrow \infty} \frac{x^2 - 16}{x^2 - 5x + 4}$

14.  $\lim_{x \rightarrow 1} \frac{x^2 - 16}{x^2 - 5x + 4}$

15.  $\lim_{x \rightarrow 8} \frac{8 - 2x}{5x - 20}$

16.  $\lim_{x \rightarrow 2} \frac{8 - 2x}{5x - 20}$

17.  $\lim_{x \rightarrow 10} \frac{8 - 2x}{5x - 20}$

18.  $\lim_{x \rightarrow 4} \frac{8 - 2x}{5x - 20}$

19.  $\lim_{x \rightarrow 4} \sqrt{25 - x^2}$

20.  $\lim_{x \rightarrow 4} \frac{x - 4}{x^2 - x - 12}$

21.  $\lim_{x \rightarrow 2} \frac{x^2 - 4}{x^2 - 5x + 6}$

22.  $\lim_{h \rightarrow 0} \frac{(2 + h)^2 - 4}{h}$

23.  $\lim_{h \rightarrow 0} \frac{(x + h)^2 - x^2}{h}$

24.  $\lim_{x \rightarrow -1} \frac{x^2 - 2x - 3}{x^2 - 1}$

25.  $\lim_{x \rightarrow \frac{\pi}{2}} \sin x$

26.  $\lim_{x \rightarrow 0} \sin x$

27.  $\lim_{x \rightarrow \frac{\pi}{2}} \frac{\sin x}{x}$

28.  $\lim_{x \rightarrow 10} \log_{10} x$

29.  $\lim_{x \rightarrow \infty} \frac{1}{x}$

30.  $\lim_{x \rightarrow 0} \frac{\sin x}{x}$

Use a calculator set to radians.